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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet **Page 1** of **10****Complete If Known**

| | |
|------------------------|-----------------|
| Application Number | To be assigned |
| Filing Date | Herewith |
| First Named Inventor | Cech, Thomas R. |
| Group Art Unit | To Be Assigned |
| Examiner Name | To Be Assigned |
| Attorney Docket Number | 015389-002980US |

| U.S. PATENT DOCUMENTS | | | | | | |
|-----------------------|-----------------------|----------------------|-----------------------------------|---|--|---|
| Examiner Initials* | Cite No. ¹ | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number | Kind Code ² (if known) | | | |
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| | | Office ³ | Number ⁴ | Kind Code ⁵ (if known) | | | |
| Jm | T | JP | 08154575-A | | | 06-17-97 | |
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| | AC | PCT | WO 98/07838 | | | 03-05-98 | |
| | AD | PCT | WO 98/08938 | | | 02-28-98 | |

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Sheet Page 2 of 10**Complete if Known**

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| See | AE | PCT | WO 88/21343 | | | 05-22-88 | | |
| | AF | PCT | WO 88/23758 | | | 08-88 | | |
| | AG | PCT | WO 88/37181 | | | 08-27-88 | | |
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| ✓ | AI | PCT | WO88/59040 | | | 12-30-88 | | |
| | AJ | PCT | WO89/01580 | | | 01-14-89 | | |

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

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|--------------------------------|-----------------------|---|----------------|
| See | AK | 1994 Genome Issue of Science (265:1981f) | |
| | AL | Anderson and Young, "Quantitative Filter Hybridization" in <i>Nucleic Acid Hybridization</i> pp73-111 (1985) | |
| | AM | Ausubel et al., <i>Current Protocols in Molecular Biology</i> , John Wiley & Sons, New York NY (1989) | |
| | AN | Autexier et al., "Reconstitution of human telomerase activity and identification of a minimal functional region of the human telomerase RNA," (1998) <i>EMBO J</i> , 15:5928 | |
| | AO | Autexier, C. et al, "Telomerase and cancer: revisiting the telomere hypothesis," <i>Trends in Biochemical Sciences</i> , 10 (21): 387-391 (1996). | |
| | AP | Autexier and Greider, "Functional reconstitution of wild-type and mutant <i>Tetrahymena</i> telomerase," (1994) <i>Genes Develop.</i> , 8:583 | |
| | AQ | Avilion, A., "Characterization and expression of human telomerase," <i>Dissertation Abstracts International</i> , 56 (11) 5930-B (1988). | |
| | AR | Bartnaga, M., "The Telomerase Picture Fills In," <i>Science</i> 276:528-529 (1997). | |
| ✓ | AS | Berger and Kimmel, <i>Guide to Molecular Cloning Techniques</i> , Meth. Enzymol., vol. 152, Academic Press, San Diego CA (1987) | |

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Sheet Page 3 of 10

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| See | AT | Blessmann et al., "Addition of Telomere-Associated HeT DNA Sequences "Heals" Broken Chromosome Ends in <i>Drosophila</i> ," <i>Cell</i> 61:863 (1990). | |
| | AU | Bitter et al., "Expression and secretion vectors for yeast," <i>Meth Enzymol.</i> , (1987) 153:518 | |
| | AV | Blackburn and Chlou, "Non-nucleosomal packaging of a tandemly repeated DNA sequence at termini of extrachromosomal DNA coding for rRNA in <i>Tetrahymena</i> ," (1981) <i>Proc. Natl. Acad. Sci.</i> , 78:2283 | |
| | AW | Blackburn and Gall, "A tandemly repeated sequence at the termini of the extrachromosomal ribosomal RNA genes in <i>Tetrahymena</i> ," (1978) <i>J. Mol. Biol.</i> , 120:33 | |
| | AX | Blackburn, "Telomerases," (1992) <i>Ann. Rev. Biochem.</i> , 61:113 | |
| | AY | Bodnar et al., "Extension of Life-Span by Introduction of Telomerase into Normal Human Cells," (1998) <i>Science</i> , 279:348 | |
| | AZ | Bradford, "A Rapid and Sensitive method for the Quantitation of Microgram Quantities of Protein Utilizing the Principle of Protein-Dye Binding," (1976) <i>Anal. Biochem.</i> , 72:248 | |
| | BA | Braunstein et al., "Transcriptional silencing in yeast is associated with reduced nucleosome acetylation," (1993) <i>Genes Develop.</i> , 7:582 | |
| | BB | Calvo et al., "Identification of hnRNP P2 as TLS/FUS using electrospray mass spectrometry," (1995) <i>RNA</i> , 1:724 | |
| | BC | Caruthers et al., "New chemical methods for synthesizing polynucleotides," (1980) <i>Nucleic Acids Res. Symp. Ser.</i> , 218-223 | |
| | BD | Chan and Tye, "Organization of DNA sequences and replication origins at yeast telomeres," (1983) <i>Cell</i> , 33:563 | |
| | BE | Colbère-Garapin et al., "A new dominant hybrid selective marker for higher eukaryotic cells," (1981) <i>J. Mol. Biol.</i> , 150:1 | |
| | BF | Cole et al., "The EBV-hybridoma technique and its application to human lung cancer," <i>Monoclonal Antibodies and Cancer Therapy</i> , Alan R. Liss Inc., New York NY 77-98 (1988) | |
| | BG | Collins et al., "Purification of <i>Tetrahymena</i> telomerase and cloning of genes encoding the two protein components of the enzyme," (1995) <i>Cell</i> , 81:877 | |
| | BH | Collins, K., "Structure and Function of Telomerase," <i>Curr. Op. Cell. Biol.</i> 8:374-380 (1996). | |

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| <i>[Signature]</i> | 1/17/05 |

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Sheet Page 4 of 10

Complete If Known

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| Application Number | To be assigned |
| Filing Date | Herewith |
| First Named Inventor | Cech, Thomas R. |
| Group Art Unit | To Be Assigned |
| Examiner Name | To Be Assigned |
| Attorney Docket Number | 015389-002980US |

| OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS | | | |
|--|-----------------------|---|----------------|
| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| SE | BI | Conrad <i>et al.</i> , "RAP1 protein interacts with yeast telomeres in vivo: Overproduction alters telomere structure and decreases chromosome stability," (1990) <i>Cell</i> , 63:739 | |
| | BJ | Coombs, <i>Dictionary of Biotechnology</i> , Stockton Press, New York NY (1984) | |
| | BK | Cote <i>et al.</i> , "Generation of human monoclonal antibodies reactive with cellular antigens," (1983) <i>Proc. Natl. Acad. Sci.</i> , 80:2026 | |
| | BL | Counter <i>et al.</i> , "The catalytic subunit of yeast telomerase," (1997) <i>Proc. Natl. Acad. Sci.</i> , 94:8202 | |
| | BM | Creighton, <i>Proteins, Structures and Molecular Principles</i> , WH Freeman and Co, New York NY (1983). | |
| | BN | Dieffenbach and Dveksler, <i>PCR Primer, a Laboratory Manual</i> , Cold Spring Harbor Press, Plainview NY (1995) | |
| | BO | Duplas <i>et al.</i> , "Quantitative analysis of polymerase chain reaction products using biotinylated dUTP incorporation," (1993) <i>Anal. Biochem.</i> , 212:229 | |
| | BP | Fang <i>et al.</i> , "Oxytricha telomere-binding protein: separable DNA-binding and dimerization domains of the α -subunit," <i>Genes Develop.</i> 7:870 (1993) and Gray <i>et al.</i> , (1991) <i>Cell</i> 67:807 | |
| | BQ | Feng <i>et al.</i> , "The RNA Component of Human Telomerase," (1995) <i>Science</i> , 269:1238 | |
| | BR | GenBank Accession No. AA281298 | |
| | BS | Genbank accession no. AA298878 | |
| | BT | Genbank accession no. AAS11750 | |
| | BU | Gilley <i>et al.</i> , "Altering specific telomerase RNA template residues affects active site function," (1995) <i>Genes Develop.</i> , 9:2214 | |
| | BV | Gottschling and Cech, "Chromatin Structure of the Molecular Ends of Oxytricha Mononuclear DNA: Phased Nucleosomes and a Telomeric Complex," (1984) <i>Cell</i> , 38:501 | |
| | BW | Gottschling and Zakian, "Telomere proteins: specific recognition and protection of the natural terminal of Oxytricha macronuclear DNA," (1988) <i>Cell</i> 47:195 | |

Examiner Signature

Date Considered

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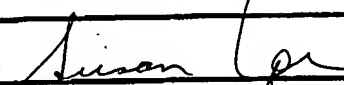
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Sheet **Page 5** of **10****Complete If Known**

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| gu | BX | Grant et al., Meth Enzymol., (1987) 153:516-544 | |
| | BY | Greenwood et al., "Phylogenetic relationships within the class oligohymenophorea, phylum ciliophora, inferred from the complete small subunit rRNA gene sequences of Colpidium campyllum, Glaucoma chattoni, and Opisthionecta henneguyi," (1991) J. Mol. Evol., 3:163 | |
| | BZ | Greider and Blackburn, "A telomeric sequence in the RNA of Tetrahymena telomerase required for telomere repeat synthesis," (1988) Nature, 337:331 | |
| | CA | Greider and Blackburn, "Identification of a specific telomere terminal transferase activity in Tetrahymena extracts," (1988) Cell, 43:405 | |
| | CB | Greider, "Telomerase is processive," (1991) Mol. Cell. Biol., 11:4572 | |
| | CC | Greider, "Telomere Length Regulation," (1996) Ann. Rev. Biochem., 65:337 | |
| | CD | Hampton et al., Serological Methods a Laboratory Manual, APS Press, St Paul MN (1990) | |
| | CE | Harrington et al., "A Mammalian Telomerase-Associated Protein," (1997) Science, 275:973 | |
| | CF | Harrington et al., "Human telomerase contains evolutionarily conserved catalytic and structural subunits," (1997) Genes Dev., 11:3109 | |
| | CG | Hartman and Mulligan, "Two dominant-acting selectable markers for gene transfer studies in mammalian cells," (1988) Proc. Natl. Acad. Sci., 85:8047 | |
| | CH | Henderson and Blackburn, "An overhanging 3' terminus is a conserved feature of telomeres," (1989) Mol Cell. Biol., 9:345 | |
| | CI | Hillier, et al., Direct Submission to GenBank, EST Database, Accession No. W70315, Available Oct. 17, 1998. | |
| | CJ | Hom et al., "Synthesis of oligonucleotides on cellulose. Part II: design and synthetic strategy to the synthesis of 22 oligodeoxynucleotides coding for gastric inhibitory polypeptide (GIP)," (1990) Nucleic Acids Res. Symp. Ser., 226-232 | |
| | CK | Hudson et al., "An STS-based map of the human genome," (1995) Science, 270:1945 | |
| | CL | Huse et al., "Generation of a large combinatorial library of the immunoglobulin repertoire in phage lambda," (1989) Science, 248:1275 | |

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| <i>SM</i> | CM | Kilian et al., "Isolation of a candidate human telomerase catalytic subunit gene, which reveals complex splicing patterns in different cell types," (1997) <i>Hum. Mol. Genet.</i> , 6:2011 | |
| | CN | Kipling and Cooke, "Hypervariable ultra-long telomeres in mice," (1980) <i>Nature</i> 347:400 | |
| | CO | Klobutcher et al., "All gene-sized DNA molecules in four species of hypotrichs have the same terminal sequence and an unusual 3' terminus," (1981) <i>Proc. Natl. Acad. Sci.</i> , 78:3015 | |
| | CP | Koehler and Milstein, "Continuous cultures of fused cells secreting antibody of predefined specificity," (1975) <i>Nature</i> 258:495 | |
| | CQ | Kosbor et al., "The production of monoclonal antibodies from human lymphocytes," (1983) <i>Immunol. Today</i> 4:72 | |
| | CR | Lemond and Sprosl, (1994) "Isolation and Characterization of Ribonucleoprotein Complexes," pp103-140 | |
| | CS | Lemond et al., "Probing the structure and function of U2 snRNP with antisense oligonucleotides made of 2'-OMe RNA," (1988) <i>Cell</i> , 58:383 | |
| | CT | Lendvay et al., "Senescence mutants of <i>Saccharomyces cerevisiae</i> with a defect in telomere replication identify three additional EST genes," (1996) <i>Genetics</i> , 144 | |
| | CU | Lingner et al., "Purification of telomerase from <i>Euplotes aediculatus</i> : requirement of a primer 3' overhang," (1996) <i>Proc. Natl. Acad. Sci.</i> , 93:10712 | |
| | CV | Lingner et al., "Reverse transcriptase motifs in the catalytic subunit of telomerase," (1997) <i>Science</i> , 276:661 | |
| | CW | Lingner et al., "Telomerase RNAs of different ciliates have a common secondary structure and a permuted template," (1994) <i>Genes Develop.</i> , 8:1984 | |
| | CX | Lingner et al., "Telomerase and DNA End Replication: No Longer a Lagging Strand Problem?," (1995) <i>Science</i> 269:1633 | |
| | CY | Lowy et al., "Isolation of transforming DNA: Cloning the hamster apt gene," (1980) <i>Cell</i> , 22:817 | |
| | CZ | Lundblad, V. et al., "RNA-dependent polymerase motifs in EST1: tentative identification of a protein component of an essential yeast telomerase," <i>Cell</i> , 60 (5):29-30 (1990). | |
| | DA | Lustig and Petes, Identification of yeast mutants with altered telomere structure," (1986) <i>Proc. Natl. Acad. Sci.</i> , 83:1395 | |

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| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|---------------------|-----------------------|---|----------------|
| See | DB | Lustig, A., "The Identification of Telomerase Subunits: Catalysing Telomere Research," <i>Trends Cell. Biol.</i> 7:299-302 (1997). | |
| | DC | Maddox et al., "Elevated serum levels in human pregnancy of a molecule immunochemically similar to eosinophil granule major basic protein," (1983) <i>J. Exp. Med.</i> , 158:1211 | |
| | DD | Makarov et al., "Nucleosomal Organization of Telomere-Specific Chromatin in Rat," (1993) <i>Cell</i> , 73:775 | |
| | DE | McEachern and Blackburn, "runaway telomere elongation caused by telomerase RNA gene mutation," (1995) <i>Nature</i> , 376:403 | |
| | DF | Meiby et al., "Quantitative measurement of human cytokine gene expression by polymerase chain reaction," (1993) <i>J. Immunol. Meth.</i> , 159:235 | |
| | DG | Merrifield, "Solid phase peptide synthesis. I. The synthesis of a tetrapeptide," (1963) <i>J. Am. Chem. Soc.</i> , 85:2148 | |
| | DH | Meyerson et al., "hEST2, the Putative Human Telomerase Catalytic Subunit Gene, Is Up-Regulated In Tumor Cells and during Immortalization," (1997) <i>Cell</i> , 90:785 | |
| | DI | Murray, in <i>McGraw Hill Yearbook of Science and Technology</i> , (1992) McGraw Hill, New York NY, pp 191-196 | |
| | DJ | Nakamura et al., "Telomerase Catalytic Subunit Homologs from Fission Yeast and Human," (1997) <i>Science</i> , 277:955 | |
| | DK | Nakayama et al., "Cloning of a Candidate cDNA Encoding a Proteinaceous Component of Mammalian Telomerase," <i>Mol. Biol. Cell. Abstracts Supp.</i> 7 p. 288a, sect. 1664 (1998). | |
| | DL | Nakayama et al., "TLP1: A Gene Encoding a Protein Component of Mammalian Telomerase Is a Novel Member of WD Repeats Family," (1997) <i>Cell</i> , 88:875 | |
| | DM | Nielsen et al., (1993) "Peptide nucleic acids (PNAs): Potential antisense and anti-gene agents," <i>Anticancer Drug Des.</i> , 8:53 | |
| | DN | Oka et al., "Inverted terminal repeat sequence in the macronuclear DNA of <i>Stylonychia pustulata</i> ," (1980) <i>Gene</i> , 10:301 | |
| | DO | Olovnikov, "A theory of marginotomy: The incomplete copying of template margin in enzymic synthesis of polynucleotides and biological significance of the phenomenon," (1973) <i>J. Theor. Biol.</i> , 41:181 | |
| | DP | Orlandi et al., "Cloning Immunoglobulin variable domains for expression by the polymerase chain reaction," (1988) <i>Proc. Natl. Acad. Sci.</i> , 86:3833 | |

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Sheet **Page 8** of **10****Complete If Known**

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|------------------------|-----------------|
| Application Number | To be assigned |
| Filing Date | Herewith |
| First Named Inventor | Cech, Thomas R. |
| Group Art Unit | To Be Assigned |
| Examiner Name | To Be Assigned |
| Attorney Docket Number | 015389-002980US |

| OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS | | | |
|---|-----------------------|---|----------------|
| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
| Ju | DQ | Prescott, "The DNA of ciliated protozoa," (1994) <i>Microbiol. Rev.</i> , 58:233 | |
| | DR | Price, (1993) <i>Blood Rev.</i> , 7:127 | |
| | DS | Rhodes et al., "Transformation of maize by electroporation of embryos," (1995) <i>Meth. Mol. Biol.</i> , 65:121 | |
| | DT | Roberge et al., "A strategy for a convergent synthesis of N-linked glycopeptides on a solid support," (1995) <i>Science</i> , 269:202 | |
| | DU | Romero and Blackburn, "A conserved secondary structure for telomerase RNA," (1991) <i>Cell</i> , 67:343 | |
| | DV | Sambrook et al., <i>Molecular Cloning, A Laboratory Manual</i> , Cold Spring Harbor Press, Plainview NY (1989) | |
| | DW | Sandell et al., "Transcription of yeast telomere alleviates telomere position effect without affecting chromosome stability," (1994) <i>Proc. Natl. Acad. Sci.</i> , 91:12061 | |
| | DX | Sanger et al., "DNA sequencing with chain-terminating inhibitors," <i>Proc. Natl. Acad. Sci.</i> , 74:5463 (1977). | |
| | DY | Scharf et al., "Heat stress promoters and transcription factors," (1994) <i>Resist. Probl. Cell Differ.</i> , 20:125 | |
| | DZ | Shampay and Blackburn, "Generation of telomere-length heterogeneity in <i>Saccharomyces cerevisiae</i> ," (1988) <i>Proc. Natl. Acad. Sci.</i> , 65:534 | |
| | EA | Sheen and Lewis, "Transposition of the LINE-like retrotransposon TART to <i>Drosophila</i> chromosome termini," (1994) <i>Proc. Natl. Acad. Sci.</i> , 91:12510 | |
| | EB | Singer and Gottschling, "TLC1: Template RNA Component of <i>Saccharomyces cerevisiae</i> Telomerase," (1994) <i>Science</i> 266:404 | |
| | EC | Singer, M., "Unusual Reverse Transcriptases," <i>J. Biol. Chem.</i> 270(42):24623-24626 (1995). | |
| | ED | Starling et al., "Extensive telomere repeat arrays in mouse are hypervariable," (1990) <i>Nucleic Acids Res.</i> , 18:6881 | |
| | EE | Swanton et al., "Arrangement of Coding and Non-coding Sequences in the DNA Molecules Coding for rRNAs in <i>Oxytricha</i> sp.," (1980) <i>Chromosoma</i> 77:203 | |

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Sheet Page 9 of 10

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|------------------------|-----------------|
| Application Number | To be assigned |
| Filing Date | Herewith |
| First Named Inventor | Cech, Thomas R. |
| Group Art Unit | To Be Assigned |
| Examiner Name | To Be Assigned |
| Attorney Docket Number | 015389-002980US |

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|------------------------|--------------------------|---|----------------|
| SC | EF | Tommerup <i>et al.</i> , "Unusual chromatin in human telomeres," (1994) <i>Mol. Cell. Biol.</i> , 14:5777 | |
| | EG | Trask, "Fluorescence in situ hybridization: application in cytogenetics and gene mapping," (1991) <i>Trends Genet.</i> , 7:149 | |
| | EH | Verma <i>et al.</i> , "Human Chromosomes: A Manual of Basic Techniques," Pergamon Press, New York NY (1988) | |
| | EI | Watson, "Origin of concatemeric T7 DNA," (1972) <i>Nature New Biol.</i> , 238:197 | |
| | EJ | Weinrich <i>et al.</i> , "Reconstitution of human telomerase with the template RNA component hTR and the catalytic protein subunit hTRT," (1997) <i>Nat. Genet.</i> , 17(4):498 | |
| | EK | Wellinger <i>et al.</i> , "Origin activation and formation of single-strand TG ₁₋₃ tails occur sequentially in late S phase on a Yeast linear plasmid," (1993) <i>Mol. Cell. Biol.</i> , 13:4057 | |
| | EL | Wellinger <i>et al.</i> , "Saccharomyces Telomeres Acquire Single-Strand TG ₁₋₃ Tails Late in S Phase," (1993) <i>Cell</i> 72:61 | |
| | EM | Whitehead Institute/MIT Center for Genome Research, Genetic Map of the Mouse, Database Release 10, April 28, 1995 | |
| | EN | Wigler <i>et al.</i> , "Transfer of purified herpes virus thymidine kinase gene to cultured mouse cells," (1977) <i>Cell</i> , 11:223 | |
| | EO | Wigler <i>et al.</i> , "Transformation of mammalian cells with an amplifiable dominant-acting gene," (1980) <i>Proc. Natl. Acad. Sci.</i> , 77:3567 | |
| | EP | Winter and Milstein, "Man-made antibodies," (1991) <i>Nature</i> , 348:293 | |
| | EQ | Wright <i>et al.</i> , "Saccharomyces telomeres assume a non-nucleosomal chromatin structure," (1992) <i>Genes Develop.</i> , 6:187 | |
| | ER | Yu <i>et al.</i> , "In vivo alteration of telomere sequences and senescence caused by mutated Tetrahymena telomerase RNAs," (1990) <i>Nature</i> , 344:128 | |
| | ES | Zahler and Prescott, "Telomere terminal transferase activity in the hypotrichous ciliate <i>Oxytricha nova</i> and a model for replication of the ends of linear DNA molecules," (1988) <i>Nucleic Acids Res.</i> , 16:8953 | |
| | ET | Zaklan, Telomeres: Beginning to Understand the End," (1995) <i>Science</i> 270:1601 | |

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| Examiner Signature | <i>[Signature]</i> | Date Considered | 11/7/05 |
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**INFORMATION DISCLOSURE
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Sheet **Page 10** of **10****Complete if Known**

| | |
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| Application Number | To be assigned |
| Filing Date | Herewith |
| First Named Inventor | Cech, Thomas R. |
| Group Art Unit | To Be Assigned |
| Examiner Name | To Be Assigned |
| Attorney Docket Number | 015389-002980US |

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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|------------------------|--------------------------|---|----------------|
| <i>See</i> | EU | Zaug et al., "Catalysis of RNA Cleavage by a Ribozyme Derived from the Group I Intron of Anabaena Pre-tRNA ^{Leu} ," | |
| <i>↓</i> | EV | Zaug, A. J. et al., "Method for determining RNA 3' ends and application to human telomerase RNA," Nucleic Acids Research, 24 (3): 532-533 (1996). | |

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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | Complete if Known | | | |
| | | Application Number | 10/053,758 | | |
| | | Filing Date | January 18, 2002 | | |
| | | First Named Inventor | Cech, Thomas R. | | |
| | | Art Unit | 1646 | | |
| | | Examiner Name | Not yet known | | |
| Sheet | 1 | of | 2 | Attorney Docket Number | 015389-002980US |

| U.S. PATENT DOCUMENTS+ | | | | | |
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| | | Country Code ³ | Number ⁴ | Kind Code ⁵ (if known) | | | | |
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No References cited

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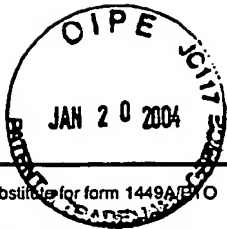
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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | Complete if Known | | | |
| | | Application Number | 10/053,758 | | |
| | | Filing Date | January 18, 2002 | | |
| | | First Named Inventor | Cech, Thomas R. | | |
| | | Art Unit | 1646 | | |
| | | Examiner Name | Not yet known | | |
| Sheet | 2 | of | 2 | Attorney Docket Number | 015389-002980US |

| NON PATENT LITERATURE DOCUMENTS | | | |
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| See | C1 | ANDERSON, W. FRENCH "Human Gene Therapy" <i>Nature</i> , April 30, 1998, pp. 25-30, Vol. 392, Supp. | |
| | C2 | CAMPBELL, KEITH & WILMUT, IAN "Totipotency or Multipotentiality of Cultured Cells: Applications and Progress" <i>Theriogenology</i> , January 1997, pp. 63-72, Vol. 47, Issue 1, Elsevier Science Inc. | |
| | C3 | GEARHART, JOHN "New Potential for Human Embryonic Stem Cells" <i>Science</i> , November 6, 1998; pp. 1061-1062, Vol. 282, Issue 5391. | |
| | C4 | HORNSBY, PJ et al. "Adrenocortical Cells Immortalized by Telomerase: Potential Use for Ex Vivo Gene Therapy" <i>Journal of Anti-Aging Medicine</i> , 2000, pp. 411-417, Vol. 3, No. 4. | |
| | C5 | OSTLER ELIZABETH L. et al. "Telomerase and the Cellular Lifespan: Implications for the Aging Process" <i>J. of Pediatric Endocrinology & Metabolism</i> , 2000, pp. 1467-1476, Vol. 13, Supplement 6, Freund Publishing House Ltd. London. | |
| | C6 | THOMSON, JAMES A. et al. "Embryonic Stem Cell Lines Derived from Human Blastocysts" <i>Science</i> , November 6, 1998; pp. 1145-1147, Vol. 282, Issue 5391. | |
| | C7 | | |

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| Examiner Signature |  | Date Considered | 1/17/05 |
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| | | Application Number | 10/053,758 | | |
| | | Filing Date | January 18, 2002 | | |
| | | First Named Inventor | Thomas R. Cech | | |
| | | Art Unit | 1646 | | |
| | | Examiner Name | Not yet known | | |
| Sheet | 1 | of | 2 | Attorney Docket Number | 015389-002980US |

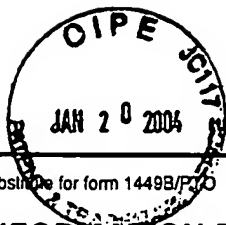
| U.S. PATENT DOCUMENTS+ | | | | | |
|------------------------|-----------------------|---|--------------------------------|--|---|
| Examiner Initials* | Cite No. ¹ | Document Number Number Kind Code ² (if known) | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| Su | A1 | US-6,440,735 B1 | 08-27-2002 | Gaeta | |
| | A2 | US-6,444,650 B1 | 09-03-2003 | Cech et al. | |
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| | A7 | US 2002-0187471 A1 | 12-12-2002 | Cech et al. | |
| | A8 | US 2003-0009019 A1 | 01-09-2003 | Cech et al. | |
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| | A10 | US 2003-0059787 A1 | 03-27-2003 | Cech et al. | |
| | A11 | US 2003-0096344 A1 | 05-22-2003 | Cech et al. | |
| | A12 | US 2003-0100093 A1 | 05-29-2003 | Cech et al. | |
| | A13 | U.S. Application No. 09/432,503 | | Cech et al. | |
| | A14 | U.S. Application No. 09/721,477 | | Cech et al. | |
| | A15 | U.S. Application No. 09/721,500 | | Cech et al. | |
| | A16 | U.S. Application No. 90/974,584 | | Cech et al. | |

| FOREIGN PATENT DOCUMENTS | | | | | | | | |
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| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | | | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
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References A13 - A15 have been lined through as they are neither published nor issued patents. Reference A16 is lined through because it is neither published nor issued and is not a US Application number.

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| | | Application Number | 10/053,758 | | |
| | | Filing Date | January 18, 2002 | | |
| | | First Named Inventor | Thomas Cech. | | |
| | | Art Unit | 1646 | | |
| | | Examiner Name | Not yet known | | |
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| gm | C1 | ADAMS, MARK et al. "Initial Assessment of Human Gene Diversity and Expression Patterns Based Upon 83 Million Nucleotides of cDNA Sequence" <i>The Genome Directory: Supplement to Nature</i> 28 September 1995, 1995, pp. 3-174, Vol. 377, Issue 6547S. | |
| | C2 | | |

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| Application Number | 10/053,758 |
| Filing Date | January 18, 2002 |
| First Named Inventor | Cech |
| Art Unit | 1646 |
| Examiner Name | |
| Attorney Docket Number | 015389-002980US |

U.S. PATENT DOCUMENTS*

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| | | Number | Kind Code ² (if known) | | | |
| See | A1 | US-5,597,697 | | 01-28-1997 | Diamond | |
| | A2 | US-5,917,025 | | 06-29-1999 | Collins | |
| | A3 | US-5,919,656 | | 07-08-1999 | Harrington, et al. | |
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| | B3 | PCT | WO 94/17210 | A1 | | | | <input type="checkbox"/> |
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| | B5 | PCT | WO 98/14593 | A2 | | | | <input type="checkbox"/> |
| | B6 | PCT | WO 99/33998 | A2 | | | | <input type="checkbox"/> |
| | B7 | PCT | WO 99/38964 | A2 | | | | <input type="checkbox"/> |
| | B8 | PCT | WO 00/46355 | A2 | | | | <input type="checkbox"/> |

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 2 of 4

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| Application Number | 10/053,758 |
| Filing Date | January 18, 2002 |
| First Named Inventor | Cech |
| Art Unit | 1646 |
| Examiner Name | |
| Attorney Docket Number | 015389-002980US |

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| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
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| Application Number | 10/053,758 |
| Filing Date | January 18, 2002 |
| First Named Inventor | Cech |
| Art Unit | 1646 |
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| Attorney Docket Number | 015389-002980US |

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| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | Application Number | 10/053,758 |
| | | Filing Date | January 18, 2002 |
| | | First Named Inventor | Cech |
| | | Art Unit | 1646 |
| | | Examiner Name | |
| Sheet 4 of 4 | Attorney Docket Number | 015389-002980US | |

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